ABSTRACT

A method for generating hydrologically correct flow vectors based on elevation data in a watershed which includes any one or more of depressions, flat areas and peaks. The watershed is typically divided into a plurality of major cells each of which encompasses a plurality of minor cells, and a user selects one or more major cells for which flow vectors are desired. Flow vectors are then calculated pursuant to the D8 method and assigned to those minor cells in the selected major cell and in surrounding major cells for which an optimal D8 solution is possible. The remaining minor cells are designated as zero vector cells and include those cells located in the problem areas. The method then generates flow vectors for minor cells in all depressions, flat areas and peaks, in that order, which exist in the selected major cells.